

Software User's Guide for

COP_TIME_SYNC

Version 1.0.0.1 for GCCS Version 2.2

27 March 1997

Inter-National Research Institute, Inc.
12350 Jefferson Avenue, Suite 400
Newport News, Virginia 23602

SUG for COP_TIME_SYNC Version 1.0.0.1

The following trademarks and registered trademarks are mentioned in this document. Within the text of this document, the appropriate symbol for a trademark (™) or a registered trademark (®) appears after the first occurrence of each item.

No trademarks appear in this document.

Copyright © 1997
Inter-National Research Institute, Inc.
All Rights Reserved

This material may be reproduced by or for the U.S. Government pursuant to the copyright license under the clause at DFARS 252.227-7013 (OCT 1988).

COP_TIME_SYNC Software User's Guide

Table of Contents

Section 1	What Is COP_TIME_SYNC?	1-1
Section 2	How Do I Install It?	2-1
	To install the COP_TIME_SYNC segment.....	2-2
Section 3	How Do I Use It?	3-1

List of Figures

Figure 1-1	MDXNet Data Flow.....	1-1
Figure 2-1	SEGMENT INSTALLER Window	2-3
Figure 2-2	SELECT MEDIA Window	2-4

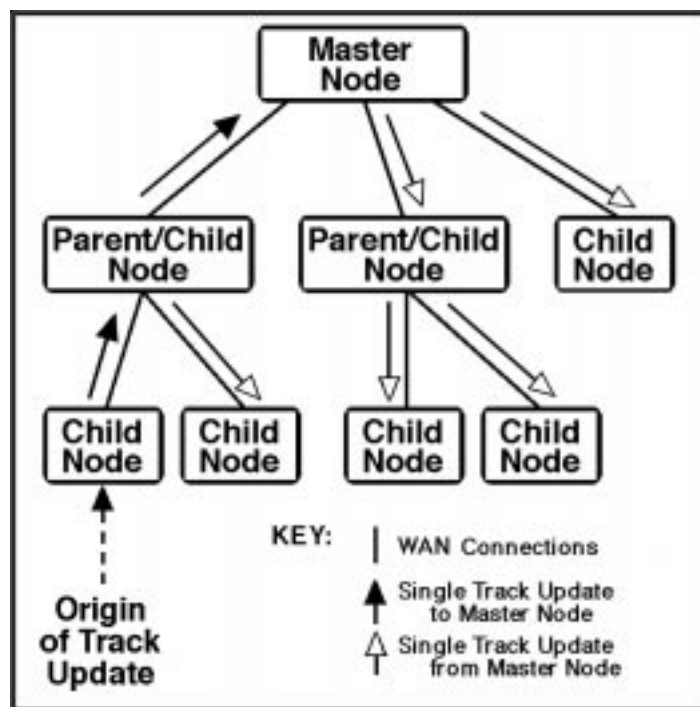
This page has been intentionally left blank.

Section 1

What Is COP_TIME_SYNC?

COP_TIME_SYNC is a segment developed for the Global Command and Control System (GCCS) Version 2.2, running Unified Build (UB) Version 3.0.1.6G. The COP_TIME_SYNC segment is often used in conjunction with the COP Sync Tool segment, which provides the MDXNet interface. MDXNet allows the near real-time exchange of track data between participating nodes on a wide area network (WAN), as depicted in Figure 1-1 (and further discussed in the *COP Sync Tool Software User's Guide*).

Figure 1-1 MDXNet Data Flow



The COP_TIME_SYNC segment provides the ability for a node to Remote-date (R-date) its system time to match that of a remote host (most commonly the master node). Because the exchange of MDXNet track data is time sensitive, each *child node* should install this segment so that it can R-date to the master node.

Once the COP_TIME_SYNC segment is installed, the child node should R-date to the master node at the start of each day.

For instructions on installing the COP_TIME_SYNC segment, see Section 2. For instructions on R-dating to a remote host, see Section 3.

Section 2

How Do I Install It?

The COP_TIME_SYNC segment provides the ability for a node to Remote-date (R-date) its system time to match that of a remote host (most commonly the master node). Because the exchange of MDXNet data is time sensitive, each *child node* should install this segment so that it can R-date to the master node. If the COP_TIME_SYNC segment is installed, the child node should R-date to the master node at the start of each day (as explained later in these instructions).

The COP_TIME_SYNC segment is provided on a 4mm or 8mm tape by the Defense Information Systems Agency (DISA). A GCCS user with system administration (sysadmin) privileges must install the COP_TIME_SYNC segment onto each GCCS workstation that will require the capability of R-dating. The tape containing this segment must be physically inserted into a compatible device on either the local GCCS workstation or a remote machine accessible via network connection to the local GCCS workstation.

Installing the COP_TIME_SYNC segment requires the use of the GCCS Segment Installer option. This option does the following:

- Identifies which applications/segments are loaded on the local workstation.
- Identifies which applications/segments are available on a tape or on a Segment Installation Server.
- Provides the capability to install and/or de-install applications/segments on the local workstation.

The Segment Installer installs segments in the /h file system on the local workstation. When this file system is approximately 80 percent full, the Segment Installer installs segments in /home1, followed by /home2, /home3, etc. The 80-percent constraint can be overridden on systems with limited disk space by using the Disk Space Override feature of the Segment Installer. In most cases, the segment installation process is automatic, requiring no further actions on the part of the user.

To install the COP_TIME_SYNC segment:

NOTE: It is highly recommended that the COP Sync Tool segment be installed before the COP_TIME_SYNC segment is installed if you are configuring a synchronized COP. It is also recommended that the COP_TIME_SYNC segment be installed on *all* child nodes on the LAN.

1. At the local GCCS workstation, log into GCCS as sysadmin, following your normal site procedures. The SYSTEM ADMINISTRATOR screen appears.
2. Insert the tape containing the COP_TIME_SYNC segment into the appropriate tape drive (on either the local workstation or a remote machine) and wait until the control panel LEDs stop blinking.
3. From the Software menu on the local GCCS workstation, select Segment Installer. The System Processing Warning window appears, informing you that any active sessions on the system will be terminated. In order to use the Segment Installer option, you must terminate all active sessions. Please advise all other users who may be affected.
4. To terminate all active sessions, click OK. The SEGMENT INSTALLER window appears. For further instructions on how to use the SEGMENT INSTALLER window, see the *Unified Build 3.0.1.6G System Administrator's Guide*.

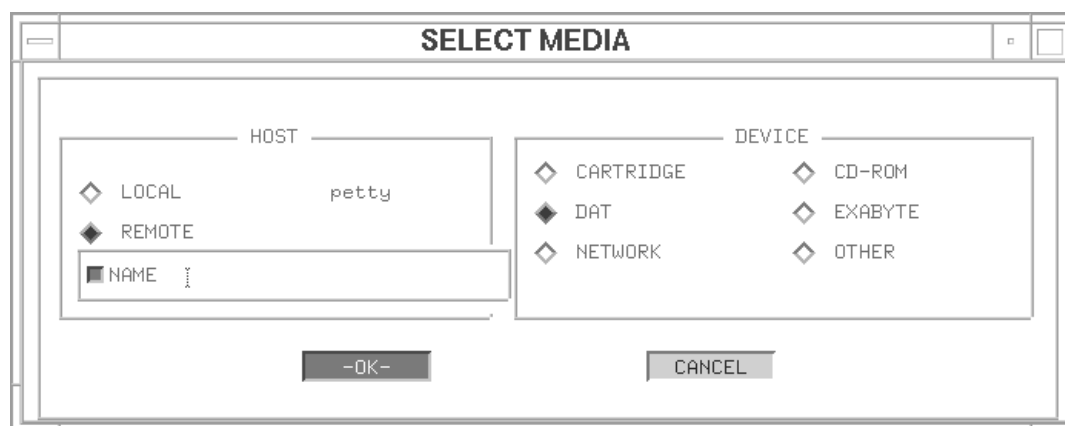
Figure 2-1 SEGMENT INSTALLER Window



If loading from a local device, proceed directly to Step 9. If loading from a remote or non-standard device, complete Steps 5 through 8 before proceeding to Step 9.

5. In the upper portion of the SOURCE box in the SEGMENT INSTALLER window, click SELECT MEDIA. The SELECT MEDIA window appears.

Figure 2-2 SELECT MEDIA Window



6. In the DEVICE box, select the media type of the segment tape (i.e., DAT or EXABYTE). (To manually enter the filename of the device, select OTHER and then enter the device name in the field that appears. **CAUTION:** It is highly recommended that only no-rewind devices be used.)
7. In the HOST box, select the location of the COP_TIME_SYNC segment tape:
 - a. If the segment tape is loaded on the local GCCS workstation, select LOCAL; then proceed to Step 8.
 - b. If the segment tape is loaded on a remote machine, select REMOTE. A NAME field appears.
 - Click the button next to the NAME field to display a list of hosts available on the network.
 - From the list of available hosts, select the name of the remote host where the tape is loaded.
8. Click OK to return to the SEGMENT INSTALLER window.
9. Click READ TOC. The TABLE OF CONTENTS box displays a list of each software segment contained on the tape. This list contains the following column headings:

NAME

Name of the segment (e.g., COP_TIME_SYNC).

VERSION

Version number of the segment.

TYPE

Type of the segment (e.g., S/W for software).

CL

Classification of the segment (e.g., U for UNCLASSIFIED).

RESERVED

Space reserved by the system on the local workstation in order for the segment to be installed.

10. From the list in the TABLE OF CONTENTS box, select COP_TIME_SYNC; then click INSTALL. A warning window appears, explaining that in order to use the Cop Time Sync option, you will need to log out of the System Administrator's account (once you have completed the installation) and then log into it again.
11. Click the EXIT button to dismiss the warning window and proceed with the installation.
12. When the installation is complete, a warning window appears, stating Selected Segment(s) Installed Successfully.
13. Click the EXIT button to dismiss the warning window and return to the SEGMENT INSTALLER window.

This page has been intentionally left blank.

Section 3

How Do I Use It?

The following instructions explain how to R-date to a remote host.

CAUTION: In the absence of automatic time synchronization software, it is extremely important for every child node to R-date to the master node as often as necessary to maintain system time values within approximately one minute of each other. In order for MDXNet to provide a true “common operational picture,” all participating nodes must be closely synchronized so that the integrity of time-sensitive track data is maintained.

1. At a workstation serving as a child node with the COP_TIME_SYNC segment installed, log into GCCS as sysadmin, following your normal site procedures. The SYSTEM ADMINISTRATOR screen appears.
2. Verify that the system to which you will R-date is listed in the EDIT HOSTS window (which is displayed from the Network menu by selecting Edit Local Hosts). If the system is not listed, add it by entering its hostname and IP address.
3. From the Network menu, select Cop Time Sync. The Time Sync window appears, displaying the following prompt: Enter Machine Name to Time Sync with.
4. In the field provided, enter the machine name of the master node.
5. Click OK. The system time of the local workstation is R-dated to the time provided by the master node.

This page has been intentionally left blank.